Medical Communications for Combat Casualty Care (MC4)
Simple Mail Protocol Transfer (SMTP) Connection Verification Guide

Rev –

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Record of Changes

DATE	VERSION	A/M/D	SECTION	DESCRIPTION	UPDATED BY

A=Addition, M= Modify, D=Delete

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1 *INTRODUCTION*

1.1 General

The Medical Communications for Combat Casualty Care (MC4) system consists of MC4 provided applications, Commercial-off-the-Shelf (COTS) Business Applications, and Theater Medical Information Program (TMIP) provided applications. The MC4 Product Management Office (PMO), located at Fort Detrick, Maryland, is responsible for the development, integration, and deployment of all MC4 systems.

1.2 Purpose

This purpose of this document is to provide the MC4 Systems Administrator with the procedures to verify the Simple Mail Transfer Protocol (SMTP) connection to the Theater Medical Data Store (TMDS) e-mail server at Force Health Protection and Readiness (FHP&R).

1.3 System Identification

The MC4 Version 1.5.0.1 transmits Electronic Medical Record (EMR) data from the Armed Forces Health Longitudinal Technology Application – Theater (AHLTA-T) system using the Simple Mail Transfer Protocol (SMTP) to the TMDS e-mail server located at FHP&R.

1.4 Document Outline

Section One: Introduction, Purpose, and Document Outline

Section Two: SMTP Connection Troubleshooting

Section Three: Acronyms

1.5 References

The following sources of information were used during the development of this document.

1.6 Using this Guide

Certain text within this document contains text enhancements to help guide the operator through procedures. Text conventions are as follows:

1. Keyboard selections are bracketed: [Enter], [F10].
2. User input opens as italic type: In the “Classification” field, type: *System**…***
3. Screen selections open as boldface type: Select **Next**.
4. Menu selections open in boldface type. Multiple menu selections open with arrows (→) separating selections: **File→Save**.
5. Window and field names open in quotation marks:
   a. A “Command” window will open.

2 *VERIFYING SMTP CONNECTION*

During the course of operations a problem may occur where messages are not being sent to TMDS from the AHLTA Theater server. All effort should be made to verify the connection from the site side prior to opening a ticket regarding connectivity issues with the TMDS e-mail server at FHP&R. It is also important to limit the amount of test data that is sent to TMDS in order to keep the repository as clean as possible. The following sections provide procedures for the site to test the SMTP connections to the TMDS e-mail servers from the site location using the internal window utilities.

2.1 TROUBLESHOOTING

The first step to troubleshooting the system is to verify the TMIP Framework is functioning correctly. Once it has been established that the TMIP Framework is functioning correctly but messages are still not transmitting then SMTP troubleshooting should be performed.

2.2 PING

Ping is a command-line tool that can be used to test whether a host is reachable across the network.

To ping the TMDS e-mail server perform the following steps:

1. Select **Start ➔ Run**
2. On the "Run" window type in *CMD* and click **OK**. The "Command" window will open.
3. At the command window prompt type *ping <207.87.24.4 or sellers-1.deploymenthealth.osd.mil>* and hit [Enter].
4. The "Command" window will update to indicate the response from the remote server. There are two possible responses, success or failure. In the event of failure the "Command" window will display a request timed out message.

NOTE: *Some networks may disable the ability to use ping. If you are unable to ping the TMDS e-mail server attempt to ping a well known website such as Microsoft.com. If the request also times out but you are able to access the site using internet explorer this may indicate that ping is disabled at your site.*

2.3 TELNET

Telnet is used to establish a connection to the remote server over the designated port, in this case port 25. This will allow sites to establish if connectivity is available to the server without the need for e-mail traffic.

To telnet to the TMDS e-mail server perform the following steps:

1. Select **Start ➔ Run**
2. On the "Run" window type in *CMD* and click **OK**. The "Command" window will open.
3. At the command window prompt type *telnet <207.87.24.4 or sellers-1.deploymenthealth.osd.mil> 25* and hit [Enter].

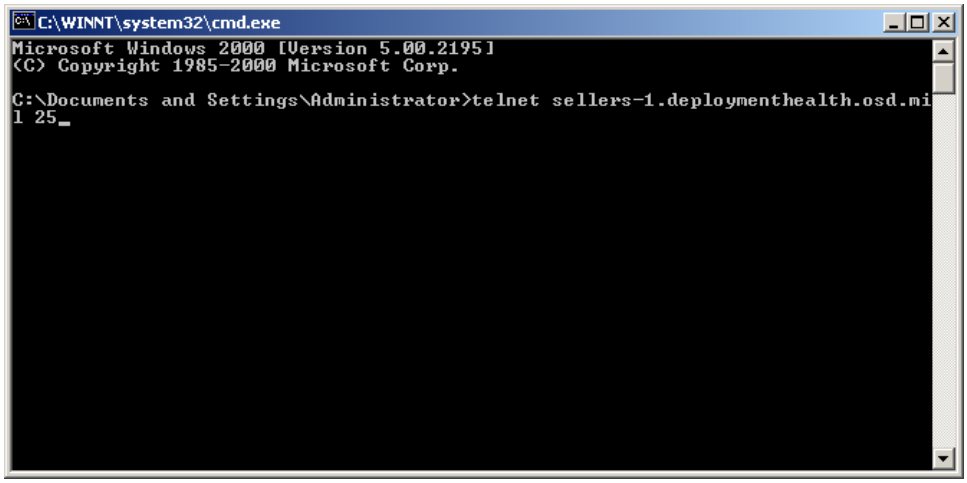

Figure 1 Telnet 1

4. If a successful connection is established two possible responses may be received.
    a. The “Command” window will return a ready message from the remote server.

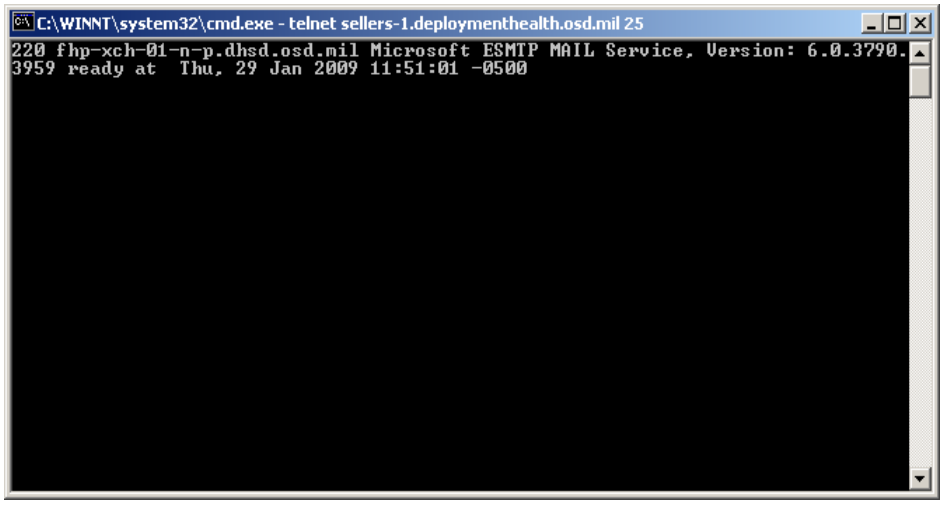

Figure 2 Telnet Response 1

    b. The “Command” window will display a blank screen with a flashing cursor.

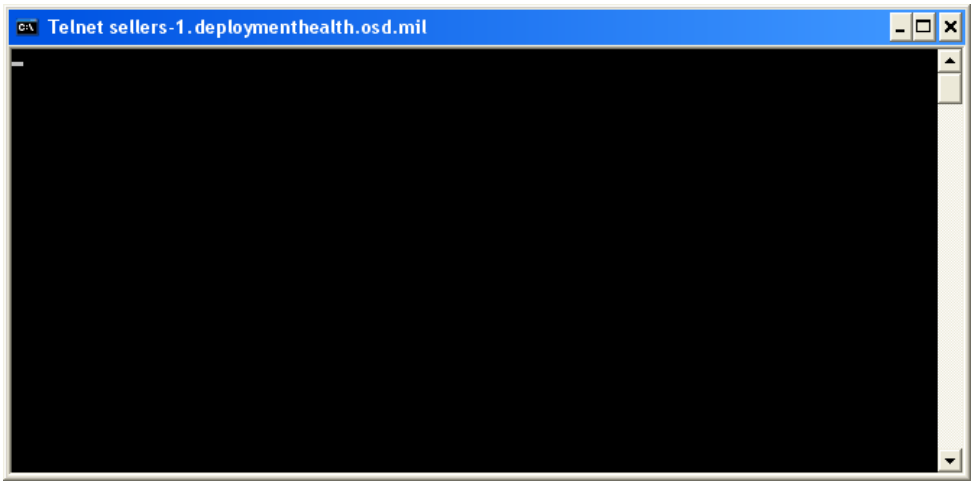

Figure 3 Telnet Response 1

NOTE: *Some networks may disable the ability to use telnet. It is recommended that if you are unable to telnet you attempt additional methods of troubleshooting as outlined in the document.*

2.4 NSLOOKUP

The nslookup command is used to verify the Domain Name Server (DNS) servers are correctly resolving deploymenthealth.osd.mil to an IP address. In order to successfully use the nslookup command for the TMDS server we must specify the type of record we are looking for.

To use nslookup perform the following procedures:

1. Select **Start ➔ Run**
2. On the "Run" window type in *CMD* and click *OK*.
3. At the "Command" window type *nslookup* and hit [Enter].
4. At the > prompt type *set type=mx* and hit [Enter].
5. Then type *deploymenthealth.osd.mil* and hit [Enter].
6. The response should resolve the TMDS e-mail server to an IP Address. If it does not resolve to an IP address, check your DNS servers.

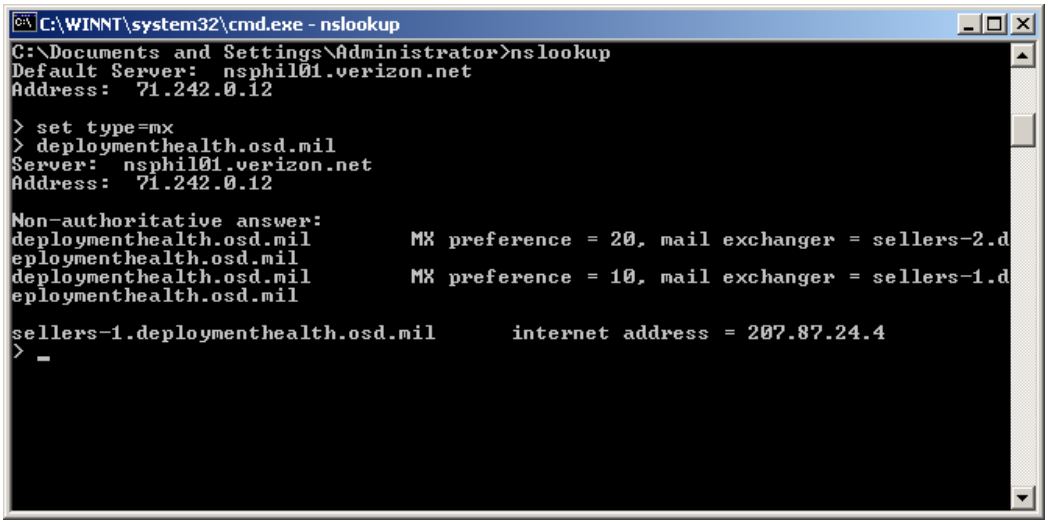

Figure 4 NS Lookup 1

2.5 NETSTAT

Network Statistics or netstat is a command-line tool that displays network connections both incoming and outgoing. The netstat tool may be used for finding problems in the network. Using the netstat tool when sending a message will allow you to review the network connections to verify message traffic destined for the TMDS e-mail server.

The following procedures should be done in conjunction with the sending of a message to TMDS. It is recommended that the message in use either be an actual AHTLA Theater message or a test message manually generated.

1. Select **Start ➔ Run**.
2. On the "Run" window type in *CMD* and click **OK**.
3. At the "Command" window type *netstat –a*.
4. The "Command" window will populate with all recent network traffic.
5. Review command window for information on the connections to the TMDS e-mail server. If there has been any recent traffic to the TMDS e-mail server you should see an entry for sellers-1.deploymenthealth.osd.mil.

2.6 TRACE ROUTE

Trace route or tracert is a command-line tool used to determine the route taken to reach the destination. This can help identify routing problems or firewall issues that may be blocking traffic prior to reaching the TMDS e-mail server.

To use trace route perform the following procedures:

1. Select **Start ➔ Run**.
2. On the "Run" window type in *CMD* and click **OK**.
3. At the "Command" window type *tracert <207.87.24.4 or sellers-1.deploymenthealth.osd.mil>* and hit [Enter].
4. Review the "Command" window for request times out messages. If messages are received after successful connection to the local site IP addresses then problem is external to the site.

2.7 SMTP Logs

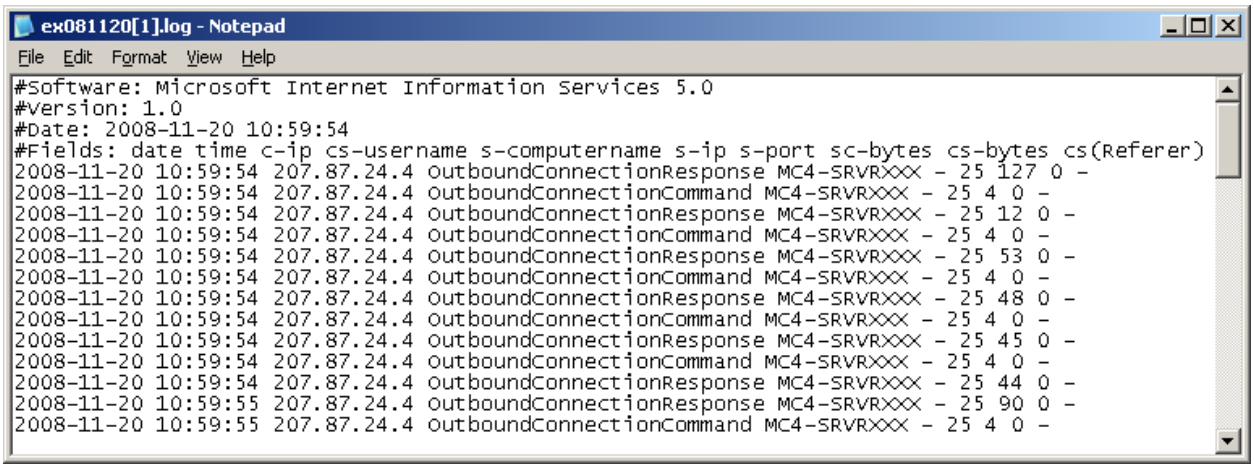

Figure 5 SMTP Logs 1

SMTP logs will provide information regarding the connection and response from the outbound system. Figure 5 provides an example of a valid SMTP log.

2.8 External Resources

A valuable resource to use when communication problems occur is system administrators at other sites. A verification of a TMDS connection with the system administrator at another site will provide you information on TMDS communications at other sites.

APPENDIX A: ACRONYM LIST

AHLTA-T	Armed Forces Health Longitudinal Technology Application - Theater
COTS	Commercial-off-the-Shelf
DNS	Domain Name Service
DoD	Department of Defense
EMR	Electronic Medical Record
FHP&R	Force Health Readiness and Protection
LAN	Local Area Network
MC4	Medical Communications for Combat Casualty Care
PMO	Product Management Office
SMTP	Simple Mail Transfer Protocol
TMDS	Theater Medical Data Server
TMIP	Theater Medical Information Program